Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	1	("6656703").PN.	USPAT	OR	OFF	2005/09/03 12:03
L3	168113	promoter	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L4	214	panb	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L5	13	L4 with L3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L6	214	panb	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L7	1024	tetrahydrofolate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L8	359293	inhibitor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L9	82	L7 with L8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L10	5454	folate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L11	603	L10 with L8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03

L12	236639	assay	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L13	168113	promoter	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L14	1024	tetrahydrofolate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L15	359293	inhibitor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L16	5454	folate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L17	603	L16 with L15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L18	236639	assay	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L19	1	("6656703").PN.	USPAT	OR	OFF	2005/09/03 12:03
L20	214	panb	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L21	13	L20 with L13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L22	82	L14 with L15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03

L23	214	panb	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03
L24	214	panb	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/09/03 12:03

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                  data from INPADOC
 NEWS  4  FEB 28  BABS - Current-awareness alerts (SDIs) available
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 NEWS  7  MAR 03  MEDLINE file segment of TOXCENTER reloaded
 NEWS  8  MAR 22  KOREAPAT now updated monthly; patent information enhanced
 NEWS  9  MAR 22  Original IDE display format returns to REGISTRY/ZREGISTRY
 NEWS  10 MAR 22  PATDPASPC - New patent database available
 NEWS  11 MAR 22  REGISTRY/ZREGISTRY enhanced with experimental property tags
 NEWS  12 APR 04  EPFULL enhanced with additional patent information and new
                  fields
 NEWS  13 APR 04  EMBASE - Database reloaded and enhanced
 NEWS  14 APR 18  New CAS Information Use Policies available online
 NEWS  15 APR 25  Patent searching, including current-awareness alerts (SDIs),
                  based on application date in CA/CAplus and USPATFULL/USPAT2
                  may be affected by a change in filing date for U.S.
                  applications.
 NEWS  16 APR 28  Improved searching of U.S. Patent Classifications for
                  U.S. patent records in CA/CAplus
 NEWS  17 MAY 23  GBFULL enhanced with patent drawing images
 NEWS  18 MAY 23  REGISTRY has been enhanced with source information from
                  CHEMCATS
 NEWS  19 JUN 06  The Analysis Edition of STN Express with Discover!
                  (Version 8.0 for Windows) now available
 NEWS  20 JUN 13  RUSSIAPAT: New full-text patent database on STN
 NEWS  21 JUN 13  FRFULL enhanced with patent drawing images
 NEWS  22 JUN 27  MARPAT displays enhanced with expanded G-group definitions
                  and text labels
 NEWS  23 JUL 01  MEDICONF removed from STN
 NEWS  24 JUL 07  STN Patent Forums to be held in July 2005
 NEWS  25 JUL 13  SCISEARCH reloaded
 NEWS  26 JUL 20  Powerful new interactive analysis and visualization software,
                  STN AnaVist, now available
 NEWS  27 AUG 11  Derwent World Patents Index(R) web-based training during
                  August
 NEWS  28 AUG 11  STN AnaVist workshops to be held in North America
 NEWS  29 AUG 30  CA/CAplus -Increased access to 19th century research documents
 NEWS  30 AUG 30  CASREACT - Enhanced with displayable reaction conditions

 NEWS EXPRESS  JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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FILE 'EMBASE' ENTERED AT 12:14:33 ON 03 SEP 2005

=> s pantothenate
L1 5293 PANTOTHENATE

=> s panG
L2 292 PANG

=> s panB
L3 120 PANB

=> s l3 or l1
L4 5347 L3 OR L1

=> s promoter
L5 371202 PROMOTER

=> s l5 (s) l1
L6 16 L5 (S) L1

=> duplicate remove l6
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, EMBASE'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L6
L7 12 DUPLICATE REMOVE L6 (4 DUPLICATES REMOVED)

=> d l7 ibib abs 1-12

L7 ANSWER 1 OF 12 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2005354223 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15933028
TITLE: Rational design of a Corynebacterium glutamicum pantothenate production strain and its characterization by metabolic flux analysis and genome-wide transcriptional profiling.
AUTHOR: Huser Andrea T; Chassagnole Christophe; Lindley Nic D; Merkamm Muriel; Guyonvarch Armel; Elisakova Veronika; Patek Miroslav; Kalinowski Jorn; Brune Iris; Puhler Alfred; Tauch Andreas
CORPORATE SOURCE: Lehrstuhl fur Genetik, Institut fur Genomforschung, Universitat Bielefeld, Universitatsstrasse 25, D-33615 Bielefeld, Germany.. Andreas.Tauch@Genetik.Uni-Bielefeld.de
SOURCE: Applied and environmental microbiology, (2005 Jun) 71 (6) 3255-68.

Journal code: 7605801. ISSN: 0099-2240.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200508
ENTRY DATE: Entered STN: 20050713
Last Updated on STN: 20050815
Entered Medline: 20050811

AB A "second-generation" production strain was derived from a Corynebacterium glutamicum pantothenate producer by rational design to assess its potential to synthesize and accumulate the vitamin pantothenate by batch cultivation. The new **pantothenate** production strain carries a deletion of the ilvA gene to abolish isoleucine synthesis, the **promoter** down-mutation P-ilvEM3 to attenuate ilvE gene expression and thereby increase ketoisovalerate availability, and two compatible plasmids to overexpress the ilvBNCD genes and duplicated copies of the panBC operon. Production assays in shake flasks revealed that the P-ilvEM3 mutation and the duplication of the panBC operon had cumulative effects on pantothenate production. During pH-regulated batch cultivation, accumulation of 8 mM pantothenate was achieved, which is the highest value reported for C. glutamicum. Metabolic flux analysis during the fermentation demonstrated that the P-ilvEM3 mutation successfully reoriented the carbon flux towards pantothenate biosynthesis. Despite this repartition of the carbon flux, ketoisovalerate not converted to pantothenate was excreted by the cell and dissipated as by-products (ketoisocaproate, DL-2,3,-dihydroxy-isovalerate, ketopantoate, pantoate), which are indicative of saturation of the pantothenate biosynthetic pathway. Genome-wide expression analysis of the production strain during batch cultivation was performed by whole-genome DNA microarray hybridization and agglomerative hierarchical clustering, which detected the enhanced expression of genes involved in leucine biosynthesis, in serine and glycine formation, in regeneration of methylenetetrahydrofolate, in de novo synthesis of nicotinic acid mononucleotide, and in a complete pathway of acyl coenzyme A conversion. Our strategy not only successfully improved pantothenate production by genetically modified C. glutamicum strains but also revealed new constraints in attaining high productivity.

L7 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1154806 CAPLUS
DOCUMENT NUMBER: 142:87553
TITLE: Increased yields of pantothenate from sporulation-deficient strains of Bacillus with mutations affecting sigE activity
INVENTOR(S): Perkins, John; Pragai, Zoltan
PATENT ASSIGNEE(S): DSM IP Assets B.V., Neth.
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004113510	A2	20041229	WO 2004-EP6619	20040618
WO 2004113510	A3	20050526		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2003-13844 A 20030618

AB Sporulation-deficient strains of Bacillus subtilis that retain the ability to ferment pantothenic acid in high yield are described. Sporulation is blocked by mutations affecting expression of the gene for the sigE transcription factor. The mutation may be in the SpolA and abrB genes. Sporulation-competent strains yielded panthothenate at 170 mg/L. Non-sporulating strains with yields of 600 mg/L were obtained by mutation in the spolA and abrB genes.

L7 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:41656 CAPLUS
DOCUMENT NUMBER: 140:110202
TITLE: Microorganisms and processes for enhanced production of pantothenate
INVENTOR(S): Yocum, R. Rogers; Patterson, Thomas A.; Pero, Janice G.; Hermann, Theron
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005527	A1	20040115	WO 2002-US21336	20020703
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491137	AA	20040115	CA 2002-2491137	20020703
EP 1520030	A1	20050406	EP 2002-746888	20020703
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: WO 2002-US21336 W 20020703

AB The present invention features improved methods for the enhanced production of pantoate and pantothenate utilizing microorganisms having modified pantothenate biosynthetic enzyme activities and having modified methylenetetrahydrofolate (MTF) biosynthetic enzyme activities. In particular, the invention features methods for enhancing production of desired products by increasing levels of a key intermediate, ketopantoate, by increasing enzymes or substrates that contribute directly or indirectly to its synthesis. Recombinant microorganisms and conditions for culturing same are also featured. Also featured are compns. produced by such microorganisms.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:41654 CAPLUS
DOCUMENT NUMBER: 140:110200
TITLE: Microorganisms and processes for enhanced production of pantothenate
INVENTOR(S): Yocum, R. Rogers; Patterson, Thomas A.; Pero, Janice G.; Hermann, Theron
PATENT ASSIGNEE(S): Omnigene Bioproducts, Inc., USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004005525	A2	20040115	WO 2003-US21305		20030703
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
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CA 2491145	AA	20040115	CA 2003-2491145		20030703
US 2004146996	A1	20040729	US 2003-614333		20030703
PRIORITY APPLN. INFO.:			US 2002-393826P	P	20020703
			WO 2003-US21305	W	20030703

AB The present invention features improved methods for the enhanced production of pantoate and pantothenate utilizing microorganisms having modified pantothenate biosynthetic enzyme activities and having modified methylenetetrahydrofolate (MTF) biosynthetic enzyme activities. In particular, the invention features methods for enhancing production of desired products by increasing levels of a key intermediate, ketopantoate, by increasing enzymes or substrates that contribute directly or indirectly to its synthesis. Recombinant microorganisms and conditions for culturing same are also are featured. Also featured are compns. produced by such microorganisms.

L7 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:591126 CAPLUS
DOCUMENT NUMBER: 139:144955
TITLE: Nucleic acid and polypeptide sequences for alanine 2,3-aminomutase and their use for production of β-alanine, pantothenate, 3-hydroxypropionic acid, and 1,3-propanediol
INVENTOR(S): Liao, Hans H.; Gokarn, Ravi R.; Gort, Steven J.; Jessen, Holly J.; Selifonova, Olga
PATENT ASSIGNEE(S): Cargill, Incorporated, USA
SOURCE: PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003062173	A2	20030731	WO 2003-US1635		20030117
WO 2003062173	A3	20050804			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2473716	AA	20030731	CA 2003-2473716		20030117
JP 2005525100	T2	20050825	JP 2003-562058		20030117
PRIORITY APPLN. INFO.:			US 2002-350727P	P	20020118
			US 2002-375785P	P	20020425
			WO 2003-US1635	W	20030117

AB The invention claims nucleic acid and polypeptide sequences for alanine 2,3-aminomutase, cells having alanine 2,3-aminomutase activity, and methods of selecting for such cells. The invention further claims methods for producing β-alanine, pantothenate, 3-hydroxypropionic acid

(3-HP), and other organic compds. using recombinant nucleic acids encoding enzymes in the biosynthetic pathways for these products. Compds. such as 3-HP, pantothenate, and CoA can be produced biocatalytically via a β-alanine intermediate. However, the cellular pathway for β-alanine synthesis requires rare precursors or expensive starting compds. and could be more easily manipulated if α-alanine could be directly converted to β-alanine. Alanine 2,3-aminomutase polypeptides were obtained by mutagenesis of Bacillus subtilis or Porphyromonas gingivalis gene kam lysine 2,3-aminomutases. Alanine 2,3-aminomutase activity was demonstrated by growth of a Escherichia coli ΔpanD or ΔpanD/ΔyeiA strain in culture medium lacking pantothenate and β-alanine after the strain was transformed with a plasmid vector encoding the enzyme.

L7 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:142927 CAPLUS
DOCUMENT NUMBER: 136:194227
TITLE: High throughput screen for inhibitors of the folate biosynthetic pathway in bacteria
INVENTOR(S): Murphy, Christopher
PATENT ASSIGNEE(S): Millennium Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002014559	A2	20020221	WO 2001-US41665		20010810
WO 2002014559	A3	20030417			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 2002164602	A1	20021107	US 2001-925824		20010809
AU 2001085429	A5	20020225	AU 2001-85429		20010810
PRIORITY APPLN. INFO.:			US 2000-224925P	P	20000811
			WO 2001-US41665	W	20010810

AB Methods for identifying compds. that are inhibitors of bacterial tetrahydrofolate biosynthesis are disclosed. The invention is based upon the discovery that the activity of promoters of certain genes is increased in the presence of compds. that inhibit B. subtilis tetrahydrofolate biosynthesis. Thus, compds. that inhibit tetrahydrofolate biosynthesis can be identified by their ability to increase the activity of the Bacillus subtilis panB promoter. Various promoters can be used in the invention, provided that the activity of the promoter is upregulated by a tetrahydrofolate biosynthesis inhibitor, such as trimethoprim or sulfonamide. Such compds. can be used as lead compds. in methods for preparing antibacterial agents for treating bacterial infections (e.g., in humans, animals, and plants). The disclosed methods allow for high throughput screening of libraries of test compds.

L7 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:229019 CAPLUS
DOCUMENT NUMBER: 134:261857
TITLE: Cloning and characterization of pantothenate biosynthetic enzymes and methods and microorganisms for production of panto-compounds
INVENTOR(S): Yocum, Rogers R.; Patterson, Thomas A.; Hermann, Theron; Pero, Janice G.
PATENT ASSIGNEE(S): Omnigene Bioproducts, USA

SOURCE: PCT Int. Appl., 292 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021772	A2	20010329	WO 2000-US25993	20000921
WO 2001021772	A3	20020307		
WO 2001021772	C2	20021205		
W: AU, BR, CA, CN, CZ, HU, ID, IL, IN, JP, KR, LT, LV, MX, NO, PL, RU, SG, SK, TR, UA, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2385497	AA	20010329	CA 2000-2385497	20000921
BR 2000014115	A	20020521	BR 2000-14115	20000921
EP 1214420	A2	20020619	EP 2000-966799	20000921
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV, FI, CY				
JP 2003527828	T2	20030924	JP 2001-525331	20000921
TR 200200751	T2	20040823	TR 2002-200200751	20000921
NO 2002001382	A	20020516	NO 2002-1382	20020320
ZA 2002003116	A	20030422	ZA 2002-3116	20020419
US 2005089973	A1	20050428	US 2004-984449	20041108

PRIORITY APPLN. INFO.:		
US 1999-400494	A	19990921
US 2000-210072P	P	20000607
US 2000-221836P	P	20000728
US 2000-227860P	P	20000824
US 2000-667569	B1	20000921
WO 2000-US25993	W	20000921

AB The present invention features methods of producing panto-compds. (e.g., pantothenate) using microorganisms in which the pantothenate biosynthetic pathway and/or the isoleucine-valine biosynthetic pathway and/or the CoA biosynthetic pathway has been manipulated. Methods featuring ketopantoate reductase overexpressing microorganisms as well as aspartate α-decarboxylase overexpressing microorganisms are provided. Methods of producing panto-compds. in a precursor-independent manner and in high yield are described. Recombinant microorganisms, vectors, isolated nucleic acid mols., genes and gene products useful in practicing the above methodologies are also provided. The present invention also features a previously unidentified pantothenate kinase gene, coaX, of Bacillus subtilis, as well as methods of producing panto-compds. utilizing microorganisms having modified pantothenate kinase activity. Recombinant microorganisms, vectors, isolated coaX nucleic acid mols. and purified CoaX proteins are featured. Also featured are methods for identifying pantothenate kinase modulators utilizing the recombinant microorganisms and/or purified CoaX proteins of the present invention.

L7 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:630310 CAPLUS
DOCUMENT NUMBER: 136:227637
TITLE: Pantothenate synthetase from Fusarium oxysporum f. sp. lycopersici is induced by α-tomatine
AUTHOR(S): Perez-Espinosa, A.; Roldan-Arjona, T.; Ruiz-Rubio, M.
CORPORATE SOURCE: Departamento de Genetica, Facultad de Ciencias, Universidad de Cordoba, Cordoba, 14071, Spain
SOURCE: Molecular Genetics and Genomics (2001), 265(5), 922-929
CODEN: MGGOAA; ISSN: 1617-4615
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The steroidal glycoalkaloid α-tomatine which is present in tomato (Lycopersicum sculentum) is assumed to protect the plant against phytopathogenic fungi. We have isolated a gene from the fungal pathogen Fusarium oxysporum f. sp. lycopersici that is induced by this glycoalkaloid. This gene, designated panC, encodes a predicted protein

with a mol. mass of 41 kDa that shows a high degree of sequence similarity to pantothenate synthetases from yeast, plants and bacteria. Recombinant PanC protein from F. oxysporum has been over-expressed in Escherichia coli and purified to homogeneity. It shows pantothenate synthetase activity in the presence of D-pantoate, β-alanine and ATP. The panC gene from F. oxysporum functionally complements an E. coli panC mutant, demonstrating that the PanC protein functions in vivo as a pantothenate synthetase. Southern anal. of F. oxysporum genomic DNA from other formae speciales indicates that there is a single copy of the pantothenate syntetase gene in this fungus. The presence of a STRE consensus sequence (CCCCT) in the promoter region of the gene suggests that the induction of panC may be part of a cellular stress response triggered by α-tomatine.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:549361 CAPLUS
DOCUMENT NUMBER: 131:167094
TITLE: Cloning of plant pantothenate synthetases and assays for inhibitors for use as herbicides
INVENTOR(S): Abell, Christopher; Smith, Alison Gail; Genschel, Ulrich; Laber, Bernd
PATENT ASSIGNEE(S): Hoechst Schering Agrevo G.m.b.H., Germany
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942565	A1	19990826	WO 1998-EP3261	19980602
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9885359	A1	19990906	AU 1998-85359	19980602
AU 753894	B2	20021031		
EP 990027	A1	20000405	EP 1998-936303	19980602
R: CH, DE, FR, GB, LI				
JP 2002510213	T2	20020402	JP 1999-538700	19980602
US 6630331	B1	20031007	US 1999-424378	19991123
US 2004033577	A1	20040219	US 2003-456684	20030605
PRIORITY APPLN. INFO.:			GB 1997-11163 A	19970531
			GB 1997-13477 A	19970627
			WO 1998-EP3261 W	19980602
			US 1999-424378 A3	19991123

AB Isolated DNA mols. encoding a protein from a plant, which protein has pantothenate synthetase activity are provided. The cDNAs isolated from Lotus japonicus and Oryzae sativa encode pantothenate synthetase protein. Assays for the pantothenate synthetase activity comprise colorimetric detection of the pyrophosphate reaction product or the inorg. phosphate further generated using yeast inorg. pyrphosphatase. The invention includes non-naturally occurring chimeric genes comprising a **promoter** operably linked to a DNA mol. encoding a protein from a plant having **pantothenate** synthetase activity, and a recombinant vector comprising the chimeric gene wherein the vector is capable of being stably transformed into host cell, a host cell stably transformed with a vector wherein the host cell is capable of expressing the DNA mol. Assaying a protein having pantothenate synthetase activity for compds. with inhibitory activity provides for new herbicidal compds. and compns.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:228963 CAPLUS
DOCUMENT NUMBER: 130:261720
TITLE: Studies on wound healing. Effects of calcium D-pantothenate on the migration, proliferation, and protein synthesis of human dermal fibroblasts in culture
AUTHOR(S): Weimann, Bernd J.; Hermann, Danielle
CORPORATE SOURCE: Vitamins Fine Chemicals Divisions, F. Hoffmann-La Roche Ltd., Basel, CH-4070, Switz.
SOURCE: International Journal for Vitamin and Nutrition Research (1999), 69(2), 113-119
CODEN: IJVNAP; ISSN: 0300-9831
PUBLISHER: Hogrefe & Huber Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect of Ca D-pantothenate on the migration, proliferation, and protein synthesis of human dermal fibroblasts from 3 different donors was investigated. The migration of cells into a wounded area was dose-dependently stimulated by Ca D-pantothenate. The number of cells that migrated across the edge of the wound increased from 32 cells/mm without Ca D-pantothenate to 76 cells/mm with 100 mg/mL Ca D-pantothenate. Moreover, the mean migration distance per cell increased from 0.23-0.33 mm. The mean migration speed was calculated to be 10.5 mm/h without and 15 mm/h with Ca D-pantothenate. Cell proliferation was also dose-dependently stimulated. The final cell densities were 1.2 to 1.6-fold higher in cultures containing 100 mg/mL Ca D-pantothenate. The protein synthesis was modulated, since 2 unidentified proteins were more strongly expressed in pantothenate supplemented cultures. In conclusion, Ca D-pantothenate accelerates the wound healing process by increasing the number of migrating cells, their distance, and hence their speed. In addition, cell division is increased and the protein synthesis changed. These results suggest that higher quantities of pantothenate are locally required to enhance wound healing.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 12 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 93015690 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1328157
TITLE: Cloning, sequencing, and expression of the pantothenate kinase (coaA) gene of Escherichia coli.
COMMENT: Erratum in: J Bacteriol 1993 May;175(9):2792
AUTHOR: Song W J; Jackowski S
CORPORATE SOURCE: Department of Biochemistry, University of Tennessee, Memphis 38163.
CONTRACT NUMBER: CA 21765 (NCI)
GM 34496 (NIGMS)
SOURCE: Journal of bacteriology, (1992 Oct) 174 (20) 6411-7.
Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-M90071; GENBANK-M94060; GENBANK-M94061; GENBANK-M94062; GENBANK-M94629; GENBANK-M94692; GENBANK-X64378; GENBANK-X64379; GENBANK-X64380; GENBANK-X64381
ENTRY MONTH: 199211
ENTRY DATE: Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921113

AB Pantothenate kinase catalyzes the rate-controlling step in coenzyme A (CoA) biosynthesis. The structural gene (coaA) located at 90 min of the Escherichia coli chromosome was cloned and sequenced. The coaA gene was transcribed in the opposite direction to the flanking genes birA and thrU and produced a single 1.1-kb transcript. Translation of the coaA gene produced two protein products (36.4 and 35.4 kDa) that differed by eight amino acids at the amino terminus. The poor homology of the coaA **promoter** region to consensus E. coli **promoter** sequences

and the low frequency of optimal codon usage (0.565) were consistent with the low abundance of **pantothenate** kinase. Strains containing multiple copies of the coaA gene possessed 76-fold-higher specific activity of pantothenate kinase; however, there was only a 2.7-fold increase in the steady-state level of CoA. These data corroborate the conclusion that regulation of pantothenate kinase activity by feedback inhibition is the critical factor controlling the intracellular CoA concentration.

L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1975:424931 CAPLUS
DOCUMENT NUMBER: 83:24931
TITLE: Influence of vitamins on growth and sporulation of Fusarium oxysporum f. udum
AUTHOR(S): Prasad, M.; Chaudhary, S. K.
CORPORATE SOURCE: Dep. Bot., Ranchi Univ., Ranchi, India
SOURCE: Phytopathologische Zeitschrift (1975), 82(1), 56-62
CODEN: PHYZA3; ISSN: 0031-9481
DOCUMENT TYPE: Journal
LANGUAGE: English
AB For its mycelial growth, F. oxysporum udum strongly depended on pyridoxine and riboflavine. These 2 vitamins inhibited the formation of macroconidia and microconidia. Inositol, thiamine, and biotin failed to stimulate mycelial growth; they stimulated microconidia formation but repressed macroconidia formation. Nicotinic acid strongly inhibited mycelial growth and production of micro- and macroconidia. L-ascorbic acid lost its inhibiting potency of mycelial growth in older cultures; it repressed micro- and macroconidia production but stimulated chlamydospore formation. Ca **pantothenate** was a late **promoter** of mycelial growth but significantly depressed macro- and microconidia. P-aminobenzoic acid did not affect mycelial growth but inhibited formation of macro- and microconidia. Folic acid strongly reduced mycelial growth and macro- and microconidia formation. All 10 vitamins stimulated production of chlamydospores. The greatest size of all the spore forms were recorded with biotin. Thiamine increased macroconidia size and inositol increased chlamydospore size. All other vitamins were either ineffective or reduced spore size.

=> s l3 or l1
L8 5347 L3 OR L1

=> d his

(FILE 'HOME' ENTERED AT 12:14:07 ON 03 SEP 2005)

FILE 'MEDLINE, CAPLUS, EMBASE' ENTERED AT 12:14:33 ON 03 SEP 2005
L1 5293 S PANTOTHENATE
L2 292 S PANG
L3 120 S PANB
L4 5347 S L3 OR L1
L5 371202 S PROMOTER
L6 16 S L5 (S) L1
L7 12 DUPLICATE REMOVE L6 (4 DUPLICATES REMOVED)
L8 5347 S L3 OR L1

=> log y

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STN INTERNATIONAL LOGOFF AT 12:17:41 ON 03 SEP 2005